

PATENT  
Attorney Docket No.: A-57004/RFT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: ) Examiner: D.L. Fitzgerald  
ARCHANA KAPOOR, et al. ) Art Unit: 1812  
Serial No. 07/906,395 )  
Filed: June 29, 1992 )  
For: MEMBRANE-ASSOCIATED )  
IMMUNOGENS OF MYCOBACTERIA )

CERTIFICATE OF FACSIMILE TRANSMISSION

I hereby certify that this correspondence is being facsimile transmitted to the United States Patent and Trademark Office on the date shown below.

Signature: \_\_\_\_\_

By \_\_\_\_\_ Date \_\_\_\_\_

DECLARATION OF ARCHANA KAPOOR

I, Archana Kapoor, hereby declare and state as follows:

1. I am a co-inventor of the subject matter claimed in the above identified patent application.
2. I conducted the experiment described at page 28, lines 17-30, the results of which are set forth in Figure 6, Panels A and B.
3. Panel A of Figure 6 shows the ethidium bromide stained electrophoretic gel of *Bam*HI digested genomic DNA from a number of species of mycobacterium. Lanes 3 and 4 contain genomic DNA digests from the non-pathogenic mycobacteria *M. vaccae* and *M. smegmatis*. Lanes 5 and 6 contain digested DNA from the virulent strain *M. tuberculosis* H37RV and the attenuated vaccine strain *M. bovis* BCG.

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4. Panel B of Figure 6 shows the results of Southern blot hybridization with a labeled insert from pMBB51A. The basic hybridization conditions for this experiment were 6xSSC at 68°C for 24 hours. These hybridization conditions are generally referred to as high stringency conditions which are routinely used by the skilled artisan conducting Southern blot hybridizations. The filter was washed with 5xSSC at 55°C for one hour. SDS was also included in both the hybridization and wash solutions. As can be seen, the non-virulent organisms do not contain sequences which are homologous to the pMBB51A insert whereas the chromosomal material in lanes 5 and 6 from the virulent and attenuated strains respectively are sufficiently homologous with the pMBB51A insert to hybridize therewith. It would not require undue experimentation on the part of the skilled artisan to reproduce the results presented in Figure 6.

5. I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements are made herein with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that any such willful false statements may jeopardize the validity of this application and any patent resulting therefrom.

*Archana*

Archana Kapoor

Dated: 15<sup>th</sup> Sept. 1993